SITE COMPREHENSIVE LISTING (CERCLIS) (LIST-09), VERSION 5.00

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USER SELECTION OPTIONS

REGION:	03
REPORT TYPE:	CERCLIS
PROGRAM AREA:	Integrated
DATA DISPLAYED:	Site and Action Data
SELECT CRITERIA:	Zip Code = 209035000
SORT BY:	Region, EPA ID
OUTPUT DESTINATION:	SCREEN

Site Comprehensive Listing (CERCLIS)

SUBJECT AREA	DATA SPONSOR	PHONE #

EPA ID / SITE ID	SITE NAME / STREET 1 / STREET 2 / CITY / COUNTY NAME	STATE / COUNTY (FIPS) CODE / ZIP CODE	LATITUDE / LONGITUDE / SOURCE	SMSA / HYDRO UNIT	OU	ACTION CODE, NAME	SEQ	ACTUAL START DATE	ACTUAL COMPLETE DATE	CURRENT ACTION LEAD
MD0170023444	USN NAVAL SURFACE WARFARE CTR-WHITE OAK		+39.116667	8840		CONGRESSIONAL DISTRICT: 08				
0300417	10901 NEW HAMPSHIRE AVENUE		-077.023333	02070010		OWNERSHIP: Federally Owned				
						NPL STATUS: N				
	SILVER SPRING	MD 209035000				FEDERAL FACILITY: Y				
	MONTGOMERY	24031				NON-NPL STATUS: Deferred to RCRA				

Site Aliases: NSWC - WHITEOAK *,,,,;USN NAVAL SURFACE WEAPONS CTR-WHITE OAK,,MONTGOMERY,MD,;WHITE OAK NAVAL SURFACE WARFARE CENTER,10901 NEW HAMPSHIRE AVE,SILVER SPRING,MD,23691;

Site Description: The former Naval Surface Warfare Center (NSWC)-White Oak was originally established in 1944 as the Naval Ordnance Laboratory, with a mission to carry out research on military guns and explosives. The former facility is located in Prince George's and Montgomery Counties approximately 5 miles north of Washington, D.C., in Silver Spring, Maryland. Through the years, the mission was expanded to include research involving mines, torpedoes, and projectiles. In September 1974, the facility combined with the Naval Weapons Laboratory, Dahlgren, Virginia, to become the Naval Surface Weapons Center, which was renamed the Naval Surface Warfare Center, Dahlgren Division, in 1988. After that time, the facility functioned as the principal Navy research, development, test, and evaluation center for surface warfare weapon systems, ordnance technology, strategic systems, and underwater weapons systems.

In response to the Base Realignment and Closure (BRAC) Act, NSWC-White Oak was closed in 1997. The approximately 712-acre property was subsequently transferred to the General Services Administration (GSA) (approximately 662 acres in the fall of 1997) and the remaining area in the southeastern portion of the facility was transferred to the U.S. Army (in February 1998). The GSA has plans to reuse and develop the subject property for commercial purposes and one of the major tenants will be the U.S. Food and Drug Administration (FDA). The property transferred to the U.S. Army will be used in conjunction with ongoing activities at the adjacent Adelphi Research Laboratory.

The EPA Resource Conservation and Recovery Act (RCRA) identification number for NSWC-White Oak is MD0170023444. For purposes of CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the Navy is the lead agency for the facility pursuant to Executive Order 12580 and a Memorandum of Understanding signed by the Navy and the GSA in July, 1997; and the MDE is the support agency. Additionally, EPA is exercising its authorities under Section 7003 of RCRA. Pursuant to these authorities, the Navy and EPA are jointly selecting the response actions at the former NSWC-White Oak facility. Clean-up monies are being provided by the Department of Defense.

The Confirmation Study Verification Phase for NSWC White Oak was conducted in September 1985. The study was conducted to confirm the findings of the IAS and to obtain additional information in characterizing site hazards. The study involved the installation of groundwater monitoring wells, the drilling of soil borings in areas of suspected soil contamination, and the collection of soil, surface water, groundwater, and sediment samples to characterize the contaminants. The contamination was found in subsurface soil and groundwater. The study concluded that sufficient contamination existed to warrant additional study.

The Base Realignment and Closure Act of 1990 (BRAC II) directed the Secretary of Defense to close or realign those installations recommended by the BRAC commission. The Community Environmental Response Facilitation Act (CERFA) of 1992 directed federal agencies with jurisdiction over certain real property to terminate federal government operations and to identify "uncontaminated" parcels of the real property. In 1995, NSWC White Oak was selected for closure on the BRAC IV list. A Phase I Environmental Baseline Survey (EBS) was conducted to assess the existing environmental information related to storage, release, treatment, or disposal of hazardous substances or petroleum products and to document the environmental condition of the property. The EBS also addressed actions required prior to property transfer to ensure compliance with requirements of CERCLA 120(h), applicable state and real estate laws, compliance programs, and the Department of Defense (DOD) policy Environmental Requirements for Federal Agency-to-Agency Property Transfer at BRAC Installations. The EBS was finalized and submitted in April 1996.

During 1995, in conjunction with the Design Verification Study, a wetlands delineation and forest stand inventory were conducted for Sites 2, 3, 4, 7, 8, 9, and 11. The delineation was performed in accordance with the delineation criteria in the 1987 U.S. Army Corps of Engineers (USACOE) Wetlands Delineation Manual. Wetland areas were identified within or adjacent to five of the seven IRP sites investigated.

A facility-wide groundwater investigation was competed in the spring and summer of 1997. The investigation included the sampling of all existing groundwater monitoring wells and the installation and sampling of new temporary and permanent groundwater monitoring wells in areas of the base proposed for reuse. The groundwater quality was similar to that found during previous studies.

An investigation to characterize background soil, sediment, groundwater, and surface water quality was performed in the fall of 1997. A final background report was published in 1998.

On June 2, 1998, EPA issued an Administrative Order to the Navy, pursuant to Section 7003 of RCRA, 42 U.S.C.? 6973, that required the Navy to:
- Undertake "Interim Measures" (IM) at the facility to prevent or mitigate threats to human health and/or the environment;
- Perform a RCRA Facility Investigation (RFI) to determine fully the nature and any release of hazardous wastes, solid wastes and/or hazardous constituents at and/or from the Facility; and
- Perform a RCRA Corrective Measures Study (CMS) to identify and evaluate alternatives for corrective action necessary to prevent or mitigate migration or releases of hazardous wastes, solid wastes and/or hazardous constituents at and/or from the Facility.

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After plans were made to consolidate the headquarters of the FDA at NSWC White Oak, GSA developed an Environmental Impact Statement (EIS) to evaluate the potential impact of the project on the human environment. The EIS provides background information on site geology, soil, topography, water resources, etc. at the former NSWC White Oak property that is now in the possession of GSA.

The Navy also conducted a Basewide Ecological Risk Assessment (BERA) at the former NSWC White Oak (April 2001).

Operable Unit 2

Operable Unit (OU) 2 includes the soil and waste material from Sites 1 and 2 and sediment impacted by Sites 1 and 2. A majority of Site 1 is presently covered by a paved parking lot, with adjacent unpaved slopes. Site 2, the Apple Orchard Landfill, is a 5.5-acre area used for waste disposal. Currently, the majority of Site 2 forms a plateau with steep side slopes. Sediment impacted by OU2 is within the drainage swale referred to above as an intermittent stream downgradient of the drainage swale. OU2 is located entirely within property currently owned by the GSA

Sites 1 and 2 were identified as Navy Installation Restoration Program (IRP) sites in an Initial Assessment Study (IAS) conducted by the Naval Energy and Environmental Support Activity (NEESA) in 1984. The purpose of the IAS was to identify sites at NSWC White Oak which would undergo potential environmental investigation. The IAS included a .records search, on-site survey, and site ranking. The IAS found that Site 1 was used for waste disposal from 1948 to 1953. Material disposed of included trash, metal scrap, construction debris, lubricating oil, storage batteries, battery acid, metal plating wastes, and vehicle maintenance shop wastes. Other than reports that 60 automobile batteries were disposed, the IAS reports no information regarding the quantity of wastes disposed. It is estimated that Site 1 contains a total of 10,000 cubic yards of fill and waste. The IAS found that Site 2 was used from 1948 to 1982 for waste disposal. Wastes reportedly disposed included fill dirt, construction rubble, polychlorinated biphenyls (PCBs), various solvents (including, xylene, acetone, dry cleaning solvents, and lacquer thinner), paint residue, acids, phenols, and other waste chemicals. The IAS estimated that approximately 2,300 gallons of these materials were disposed of at Site 2 during each year of disposal. Additionally, the IAS found that carbon tetra chloride, and methyl ethyl ketone may have been disposed of at the landfill, and that between 500 and 1,000 gallons of oil containing polychlorinated biphenyls (PCBs) were deposited in the landfill during 1957-58. In addition, an unknown quantity of ordnance shapes (metal vessels used during research at the former facility), were disposed in the landfill. Ordnance shapes are not likely to contain hazardous substances and are considered to be inert (i.e., do not have explosive characteristics), low-hazard military wastes. It is estimated that Site 2 contains a total of 75,000 cubic yards of fill and waste.

A Record of Decision (ROD) addressing OU2 was completed in July 2001.

Site 8 - Abandoned Chemical Disposal Pit

Site 8 was identified as a Navy IRP site in an IAS conducted by NEESA in 1984. The purpose of the IAS was to identify sites at NSWC White Oak that would undergo potential environmental investigations. The IAS included a records search, on-site survey, and site ranking.

Site 8 was a pit measuring approximately 10 feet by 10 feet by 12 feet deep. The location of the site was identified during the Design Verification Study. The site was used from 1951 until 1971 for disposal of miscellaneous waste chemicals from laboratories throughout the former NSWC White Oak facility. Wastes reportedly disposed at this site included acids, mercury, solvents, and numerous unidentified waste chemicals. The primary wastes of concern were solvents and mercury. It was estimated that approximately 180 pounds of mercury were disposed at this location.

Investigation activities have been conducted at Site 8 since 1985 to meet the requirements of both a CERCLA remedial investigation (RI) and a RCRA RFI. The investigative activities focused on characterizing soil and groundwater at Site 8.

The Confirmation Study Verification Phase for NSWC White Oak was conducted to confirm the findings of the IAS and to obtain additional information on site hazards. The study involved the installation of groundwater monitoring wells, the drilling of soil borings in areas of suspected soil contamination, and the collection of soil and groundwater samples to characterize site contaminants. Site contamination was found in groundwater, and the report concluded that sufficient contamination existed to warrant additional study.

Site 8 was further investigated during two additional phases of RI work performed between January 1989 and March 1992. Additional surface and subsurface soil, sediment, surface water, and groundwater samples were collected during these investigations. The results of the RI confirmed the presence of contamination at Site 8. The analytical data were used in the calculation of potential risk, based on exposure to groundwater. The calculated risks were determined to be high enough to support the development of a feasibility study (FS) for the site. A draft FS completed in March 1993 outlined the proposed remedial strategies for the site. The FS evaluated the previous site characterization data to determine the most effective means to reduce environmental hazards at NSWC White Oak.

An additional investigation of Site 8 was completed as part of a Design Verification Study, which included record reviews, terrain conductivity surveys, test pit excavation, and subsurface soil and sediment sampling. A report was issued addressing the findings of the study for Sites 8, 9, and 11.

The removal of buried waste materials and contaminated soils from the disposal pit at Site 8 was conducted during source removal activities in 1996 to address contaminant sources that might be impacting groundwater at NSWC White Oak. The activities included the excavation and off-site disposal of waste and contaminated media in conjunction with the findings of the Design Verification Study. Subsurface soil sampling was performed following the completion of waste removal activities to verify the removal of contaminated soil. The results of confirmation sampling performed during the removal action are compiled in the Post-Removal Action Report.

A No Action Record of Decision (ROD) was completed for Site 8 on July 24, 2002.

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A No Action Record of Decision (ROD) was completed for Site 8 on July 24, 2002.

Site 11: Industrial Wastewater Disposal Area 100

Site 11, also known as Industrial Wastewater Disposal Area 100, comprises approximately 16 acres and reportedly included up to 14 leaching (or dry) wells. These wells were reportedly used to dispose of an estimated 20,000 gallons of liquid wastes generated by NSWC White Oak laboratories between 1951 and 1976. The wastes of concern were reported to include acids, metals, photographic wastes, solvents, and organic explosive compounds. The liquid wastes were conveyed from the laboratories to the wells by subsurface piping. Through their operation, subsurface soil and groundwater were potentially impacted and are the media of concern associated with Site 11. Surface soil would not have been impacted by the leaching well operation.

Site 11 is located entirely within property currently owned by the GSA.

Numerous investigations have been completed at NSWC White Oak over the last 18 years. The work from previous studies and investigations related to Site 11 is outlined below.

Site 11 was identified as a Navy IRP site in an IAS conducted by NEESA in 1984. The purpose of the IAS was to identify sites at NSWC White Oak that would undergo potential environmental investigation. The IAS included a records search, on-site survey, and site ranking and identified 14 sites as needing further investigation.

Investigation activities have been conducted at Site 11 since 1987 to meet the requirements of both an RI and an RFI. The investigative activities focused on characterizing subsurface soil, groundwater, surface water, and sediment at or adjacent to Site 11.

In accordance with the Code of Maryland Regulations (COMAR) Title 26, hazardous waste generators that store hazardous waste for longer than 90 days are required to obtain a permit as a treatment, storage, and disposal facility (TSDF). Additionally, under the provisions of the Hazardous and Solid Waste Amendments (HSWA) to RCRA, TSDFs seeking final permits are required to initiate corrective actions for releases of hazardous wastes or constituents from Solid Waste Management Units (SWMUs). NSWC White Oak operated under an interim status for on- site storage of hazardous waste. The Navy first submitted an application for a final (Part B) permit to Maryland in 1985, and made subsequent resubmissions and modifications. The last permit application was submitted in 1992.

Following the submission of the revised RCRA Part B permit application in 1988, a RCRA facility assessment (RFA) was conducted by an U.S. Environmental Protection Agency (EPA) contractor in November 1990. The RFA identified 97 SWMUs and 19 areas of concern (AOCs) at NSWC White Oak. All 14 of the IRP sites identified in the IAS were identified as SWMUs or AOCs. In the RFA report, 40 SWMUs were recommended for an RFI to assess the presence and migration of potential contaminants of concern (PCOCs). SWMUs 10 through 19 were associated with Site 11.

In September 1992, an RFA review was completed that evaluated the applicability of the general recommendations of the RFA to the individual SWMUs. Generally, for those SWMUs that were being investigated under the IRP, it was concluded that the planned level of effort was sufficient to address potential impacts from those SWMUs. It was also concluded that some level of sampling would probably be required for most of the SWMUs and AOCs that were recommended for an RFI or verification sampling.

An RI was conducted at the base in two phases between January 1989 and March 1992. The RI was conducted to further characterize hazards associated with the identified sites and to aid in the development of remedial action plans for each. The RI involved the placement of additional groundwater monitoring wells at all sites; collection of surface and subsurface soil, sediment, surface water and groundwater samples throughout the areas of investigation; collection of ecological data at all sites; completion of soil gas surveys at Sites 2, 3, 9, and 11; and completion of slug tests and aquifer pumping tests at Site 11.

The results of the RI confirmed the presence of contamination at Site 11. The analytical data were used in the calculation of potential risk, based on exposure to groundwater. The calculated risks were determined to be high enough to support the development of a feasibility study (FS) for the site. A draft FS completed in March 1993 outlined the proposed remedial strategies for the site. The FS evaluated the previous site characterization data to determine the most effective means to reduce environmental hazards at NSWC White Oak. Risk associated with groundwater contamination identified at Site 11 will be addressed through another ROD.

Source removal activities were completed at Sites 8, 9, and 11 during 1996 to address contaminant sources that may be impacting groundwater at NSWC White Oak. The activities included the excavation and off-site disposal of waste and contaminated media from these sites in conjunction with the findings of the Design Verification Study. The activities included the removal of five leaching wells (LW- 2, LW-4, LW-5, LW-12, and LW-13) and surrounding subsurface soil from Site 11. Subsurface soil sampling was performed following the completion of waste and soil removal activities to verify the removal of contamination. The results of confirmation sampling performed during the removal action are compiled in the Post-Removal Action Report.

Because of a proposal to relocate the Naval Sea Systems Command (NAVSEA) Headquarters to the NSWC White Oak property, geotechnical investigations and utility surveys were conducted within the 100 Area (IRP Site 11) of the base in 1994 (following placement of NSWC White Oak on the BRAC list, the NAVSEA headquarters were relocated to the Washington Navy Yard. Washington, D.C.) During the NAVSEA Headquarters design, a subsurface exploration program consisting of 41 test borings was undertaken. Water levels were measured within the soil borings and a geotechnical laboratory testing program was performed to aid in determining soil conditions and foundation requirements. Recommendations for foundations and utilities were presented in the report and preliminary design.

A No Action Record of Decision (ROD) was completed for NSWC White Oak, Site 11 July 24, 2002.

OU 3:

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The Parking Lot Landfill (Site 1) is believed to have been used as an open disposal site and landfill between 1948 and 1953. Site 1 was located east and south of Building 101 A and adjacent to the Apple Orchard Landfill (Site 2). The wastes reportedly disposed within this landfill included lubricating oil, battery acid, metal plating wastes, and metal scrap. It has been reported that approximately 60 automobile batteries were disposed at the site over its operating life. Waste disposal activities were evident in aerial photographs of the site in 1957. Waste and fill material within Site 1 have been excavated and consolidated beneath the operable unit (OU) 2 landfill cap.

The Apple Orchard Landfill (Site 2) was an abandoned landfill located on the south side of the Perimeter Road in the northwestern end of the former NSWC-White Oak property. Site 2 reportedly operated as an open disposal area and landfill from 1948 until 1982. The landfill was a single unit composed of several disposal areas. In addition to domestic refuse, wastes reportedly disposed at the site included oils containing PCBs, solvents, paint residue, acids, and miscellaneous compounds. An estimated 500 gallons of PCB-contaminated oils are believed to have been deposited at the site prior to 1970. Ordnance shapes have also been identified at the site. Shapes are testing apparatus used at NSWC-White Oak that resemble live ordnance designed and/or used by the DoD. The shapes were used for non-explosives-related testing at NSWC-White Oak. To date, no ordnance shapes discovered at NSWC-White Oak have been found to contain explosive materials. It has been estimated that Site 2 contains approximately 75,000 cubic yards of waste and fill.

An RI was conducted at the base in two phases between January 1989 and March 1992. The RI was conducted to further characterize hazards associated with the identified sites and to aid in the development of remedial action plans for each. The RI involved the placement of additional groundwater monitoring wells at all sites; collection of surface and subsurface soil, sediment, surface water, and groundwater samples throughout the areas of investigation; collection of ecological data at all sites; completion of soil gas surveys at Sites 2,3, 9, and 11; and completion of aquifer slug tests and pumping tests at Site 11.

The results of the RI confirmed the presence of contamination at Site 2. The analytical data were used in the calculation of potential risk, based on exposure to groundwater and surface water. The calculated risks were determined to be high enough to support the development of a Feasibility Study (FS) for the site. A draft FS in March 1993 outlined the proposed remedial strategies for the site. The FS evaluated the previous site characterization data to determine the most effective means to reduce environmental hazards at NSWC-White Oak.

A site screening was performed for various sites at NSWC-White Oak in October 1997. The objectives of the investigation at Site 1 included delineating the limits of disposal and making a preliminary assessment of the presence or absence of contaminant migration from the landfill to the surrounding environment. The investigation included a geophysical survey to assess the areal extent of the landfill and soil and groundwater sampling. Temporary well points were used to assess the impact of the landfill wastes on site groundwater. The results of the risk screening evaluation indicated that semi-volatile organic compounds (SVOCs), inorganics, and polychlorinated biphenyls (PCBs) were Potential Contaminants of Concern at Site 1. Both surface soil and groundwater appeared to have been impacted by waste management activities.

As the lead agency the Navy determined that a non-time-critical removal action under CERCLA was appropriate for Site 1. This approach was supported by the results of the Site Screening for Site 1. An Engineering Evaluation/Cost Analysis (EE/CA) was prepared that developed, evaluated, and recommended an appropriate removal action to address waste and contaminated soil at Site 1. Fieldwork in support of an EE/CA was performed in April 1999. Test pits were excavated to identify the boundaries of the landfill and the depth of the waste. The approximate extent of surface soil contamination was also identified. Detailed findings of the field investigation are presented in the Site 1 EE/CA.

The Navy's Removal Action Contractor (RAC) conducted a confirmatory trenching program at Site 1 during the winter of 1999/2000. The results of the program further refined the. limits of waste as defined during the EE/CA field investigation.

A multi-site RFI was completed in October 2000. This RFI was conducted, in part, to gather sufficient characterization information to determine the extent that Site 2 and associated environmental conditions may impact human health and the environment. During the RFI, surface and subsurface soil, groundwater, surface water, and sediment samples were collected at Site 2. In addition, six monitoring wells were installed.

Additional groundwater data were obtained in 1999 during four rounds (January/February, April, July/August, and October) of sampling and analysis of groundwater from 11 wells. Data from this investigation are presented in the report titled Addendum Rounds 1, 2, 3, & 4 Groundwater Data, RCRA Facility Investigation for Sites 2, 3, 4, 7, and 9. Groundwater samples were analyzed for volatile organic compounds (VOCs), SVOCs, pesticides and PCBs, explosives, and inorganic compounds. Results provided data for within-well comparisons over time.

Waste within Sites 1 and 2 were consolidated and capped as OU 2 in 2001. The closed landfill forms a small, level hill with an elevation of approximately 365 feet above mean sea level (msl). The landfill slopes to an unnamed stream along its southern edge and to drainage swales along its western, eastern, and northern perimeter. OU 2 covers approximately 5 acres, the majority of which consists of the landfill slopes. The landfill is bordered to the south by mixed deciduous forest, to the east by Virginia Pine Forest, and to the north by private lands supporting residential development and Virginia Pine Forest.

Surface runoff from OU 2 generally flows to the south into the unnamed stream located along its southern edge. Surface runoff from the former 100 Area of NSWC-White Oak and the FDA development are located upstream of the landfill and provide a source for the baseline stream flow in the vicinity of the landfill. An intermittent stream flows southward in the drainage swale located parallel to the western edge of OU 2 and conveys flow from a stormwater retention pond north of the properly.

OU 3 is coincident with a capped landfill and at land surface consists of only open space. The GSA, which owns the property, has plans to use the property adjacent to the landfill for nonresidential purposes. The buildings constructed, as part of this development will be leased to the FDA. Given the nature of the site, a capped landfill, the reasonably anticipated use of OU 2 is also commercial/industrial use. Nonetheless, for the purposes of the site assessment, the site was evaluated assuming the possibility of future residential use.

Groundwater at OU 3 is not used as a potable water source at this time and there is no known plan to use the impacted groundwater. In addition, water for occupants of the former NSWC-White

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Oak is (and is expected to continue to be) supplied by a local municipal water authority.

A Record of Decision (ROD) addressing OU 3 was completed in September 2004.

OU 4:

Site 7, also known as the Ordnance Burn Area, consists of a large shallow ditch approximately 20 feet wide and 400 feet long. The rest of the area adjacent to the swale is either cleared or covered by woodland or grass. Site 7 is located north of Dahlgren Road and the fenced area that contains Buildings 501, 506, and 508.

Site 7 reportedly was used to dispose of waste ordnance compounds between 1948 and 1968. Wastes disposed at this site included various types of explosives, primarily nitroaromatic and nitroaliphatic compounds, which were placed in the ditch and ignited. It has been reported that approximately 33,000 pounds of explosives were burned here over 20 years. The intent of the disposal operations was to burn all of the waste residue, so that no solid wastes remained in the ditch. However, investigations indicate that surface soil and groundwater were affected by site operations, and that some wastes remain.

Contaminated groundwater associated with Site 7 coincides with the historic area of explosive residue burning. Contaminated soil at the site has been excavated and disposed offsite as part of a time critical removal action completed in November 2002 and the soil remaining at the site no longer poses an unacceptable human health or ecological risk. Furthermore, the onsite soil no longer represents a source of contamination to the underlying groundwater or nearby surface water.

Site 7 is located entirely within property currently owned by the GSA. The GSA has no immediate plans to use Site 7. For the purposes of the risk assessment, the site was evaluated assuming the possibility of future residential use.

Groundwater at Site 7, and throughout the former NSWC White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells. Nonetheless, for the purposes of the site risk assessment, the groundwater was evaluated as a potential residential drinking water source.

This ROD addresses soil at Site 7 and the groundwater underlying Site 7. A Record of Decision (ROD) addressing this site was completed in September 2004.

OU 6:

Site 9 consists of various wastewater collection and disposal features in the 300 Area, which is located in the southeast portion of NSWC-White Oak. The 300 Area is located between West Farm Branch, a small southward-flowing tributary of Paint Branch and the small intermittent stream running along the east side of Isherwood Road (the Isherwood Road stream), and extends south from Dahlgren Road to the NSWC-White Oak boundary. The area occupied by Site 9 is located entirely within property currently owned by the GSA. However, the plume of contaminated groundwater originating on Site 9 extended onto property that has since been transferred to the Army and is now part of the Army's ALC.

Site 9 consists of 17 former leaching wells, two former leach fields, the former location of an underground wastewater storage tank at Building 327, and a former industrial wastewater collection sump at Building 318, all of which are located within the 300 Area. Liquid wastes containing explosive compounds, including hexahydro-1,3,5-trinitro-1,3,5-triazin (RDX) and octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX), as well as trichloroethene (TCE) and other chemicals, reportedly were disposed in the leaching wells, were stored in the Building 327 underground storage tank (UST), and handled in the Building 318 sump.

Two of the leaching wells were excavated in a removal action conducted in October 1996. Four other leaching wells were excavated as a housekeeping measure or were confirmed as having been removed in 2003. No physical evidence of the other leaching wells/fields could be found during the IRP activities, and it is assumed that they have been previously removed. Groundwater and soil sampling in the vicinity of each of the 19 former leaching wells and leach fields did not indicate any contamination above levels that would warrant remedial action. The Building 327 underground tank was excavated in 1996, and follow-up soil and groundwater sampling did not detect any evidence of a release from the tank.

Building 318 was an explosives machining facility that generated wastewater containing explosives compounds such as RDX, HMX, and perchlorate. Wastewater was collected in a system of floor trenches that led to a central collection sump. Facility records indicate that the sump had leaked into the underlying soil in the past, but had subsequently been repaired. However, groundwater samples collected in 2003 in the 300 Area downgradient from Building 318 and the former sump indicate that the sump is the source of groundwater contamination with RDX, perchlorate, and several other explosives compounds.

Site 9 was identified as a Navy IRP site in an Initial Assessment Study (IAS) conducted by the Navy's Naval Energy and Environmental Support Activity (NEESA) in 1984. Investigation activities have been conducted at Site 9 since 1985 to meet the requirements of both a CERCLA Remedial Investigation (RI) and a RCRA RFI.

A groundwater remediation pilot test was conducted at the site beginning in July 2003 to evaluate the effectiveness of enhanced in-situ anaerobic bioremediation to degrade contaminants (explosives compounds and perchlorate) in groundwater at the site. The pilot test used sodium lactate as an electron donor to promote biodegradation of the site contaminants. Ten new monitoring wells were installed in the pilot study target area at Site 9 to further define the source of contamination. Groundwater data from these wells identified the source as the former wastewater collection sump in Building 318.

Two leaching wells at Site 9 (LW-1 and LW-9), along with some surrounding soil that contained discolorations and elevated levels of polycyclic aromatic hydrocarbons (PAHs), were excavated

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in a removal action conducted in October 1996. Post-excavation samples contained no unacceptable concentrations of constituents. The removal action is documented in a post-removal action report. At approximately the same time in the mid-1990s, the UST used to store wastewater at Building 327 was excavated. This UST is also referred to as LW-7.

Four other leaching wells were excavated as a housekeeping measure in 2003 or were confirmed as having been previously removed. No physical evidence of the other 13 leaching wells/fields were found during the IRP activities, and it was assumed that they had been previously removed.

The area of Site 9 consists of open field and woodlands in the southwest part of operable unit (OU) 1. The area surrounding the field to the north, east, and west is wooded property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of Site 9, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

A Record of Decision (ROD) addressing OU 6 was completed in September 2004.

OU 9:

Site 4 is located in the northeast portion of NSWC-White Oak, along the property line with the Percontee Sand and Gravel. Chemicals and other wastes reportedly were buried beginning in the mid-1950s until the early 1970s. It was initially believed that wastes were disposed of in four discrete burial trenches within the 1.1 acre site. However, information from tests pits collected in 1999 in preparation for the 1999 removal action determined that disposal of material was not confined to discrete trenches, but rather to two larger burial areas (Burial Area 1 and Burial Area 2). Wastes disposed at Site 4 reportedly included chlorinated solvents, fuel tank sludges, kerosene, acids, explosives compounds and chemical powder (including white phosphorus). Unidentified laboratory chemicals in glass bottles also were disposed at the site.

The site is relatively flat and surrounded by a rising slope to the east, south, and west. There are no surface water features near the site. Surface water runoff from on and around the immediate vicinity of the site, flows toward the center of the site and infiltrates the soil overlying the former disposal pits and migrates into the subsurface soils. Site 4 supports old field vegetation but is bordered to the south, east, and west by oak-hickory forest.

Site 4 is located entirely within property currently owned by GSA.

The Site 4 groundwater is defined as groundwater contaminant plume [consisting primarily of chlorinated volatile organic compounds (VOCs)] originating at the former chemical burial area (Site 4) and extending south and southeast toward Paint Branch and the stream flowing along the east side of Floral Drive.

For the purposes of this ROD, Site 4 groundwater includes the groundwater beneath the area previously identified as site 46, because the Navy has determined that Site 4 is the source of contaminated groundwater in the Site 46 area. Site 4 groundwater does not include the plume of explosives-contaminated groundwater originating at Site 7, except where this plume overlaps the Site 4 VOC plume. The site 4 plume extends from the property currently owned by GSA onto the Army property, and the leading edge of the plume has migrated onto private residential property located between the federal government property and the aforementioned streams (Paint Branch and the stream along Floral Drive).

The GSA, which owns the property overlying the groundwater containing the highest concentrations of contaminants, has no immediate plans to use this area. The Army property is currently being used for industrial purposes.

The private properties overlying the far southern extent of the plume cover approximately 16 acres. There are no drinking water supply wells located on these properties and all of the properties are provided with water from public source. Goundwater at Site 4, and throughout the former NSWC White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for the current and future occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells without a permit.

A Record of Decision (ROD) addressing OU 9 was completed in September 2005.

OU 13:

The former Pistol Range Landfill is located in the eastern half of the facility, north of Dahlgren Road. The former landfill is bordered to the south and east by Perimeter Road, to the north by property boundary and to the west by Westfarm Branch and a wetland. A Washington Suburban Sanitary Commission sewer right-of-way is west of Westfarm Branch. The overall area of the site is 1.5acres. The ground surface slopes gently to the west.

The site was operated as a landfill from the late 1940s until the mid-1970s. Based on a review of topographic maps that pre-date landfill operations, fill materials were pushed into the stream valley to Westfarm Branch from Perimeter Road. Wastes reportedly disposed in the landfill included solid wastes, ordnance cases, solvents, oils possibly containing polychlorinated biphenyls (PCBs), sodium nitrate, and miscellaneous metallic objects. An estimated 8,000 gallons of solvents and oils were reportedly disposed at the site during the 30-year period

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(PCBs), sodium nitrate, and miscellaneous metals subject. An estimated 6,000 gallons of solvents and oils were reported disposed at this site during the 30 year period.

A removal action was performed at Site 3 by the Naval Facilities Engineering Command Atlantic Division Remedial Action Contractor (RAC) between June 2000 and August 2000. Approximately 40,000 tons of contaminated soil and solid waste were removed from Site 3 and transported to a municipal solid waste landfill for disposal. Following completion of excavation and confirmatory sampling, the site was restored with clean backfill to promote surface drainage to Westfarm Branch and vegetated. Site 13 is an adjacent site located east, uphill of Site 3 between Dahlgren Road and northern perimeter road. The site occupies approximately 0.7 acre. Anecdotal accounts state that between 1970 and 1978, approximately 6,000 and 10,000 gallons of oily sludge from storage tanks containing No.6 fuel oil were spread over the surface of Site 13, however the location and history of Site 13 is not well documented. Groundwater data collected at Site 13 indicate that concentrations of volatile organic compounds (VOCs) would present risks to receptors if groundwater were used as potable water. A portion of the Site 13 groundwater plume extends under the boundary of Site 3.

An Record of Decision addressing OU 13 was completed in March 2005.

OU 14:

Site 28 is known as the Building T-14 Scrapyard. The Site is a fenced area, measuring 150 feet by 200 feet that was used to temporarily store materials prior to disposal or reuse. The Site is located in the central portion of the former NSWC-White Oak, south of Bowditch Road. Site 28 is located entirely within property currently owned by the GSA.

The Site was identified as an Installation Restoration (IR) site by the Navy and as a solid waste management unit (SWMU) by EPA during the Resource Conservation and Recover Act (RCRA) facility assessment (RFA) in 1990. The Site was used between 1967 and 1975 to store transformers directly on the hard-packed gravel surface. The transformers were stored in a 20-foot by 40-foot area, the exact location of which is unknown. Some areas of the Site are currently covered with concrete.

The GSA has plans to use the property adjacent to Site 28 for nonresidential purposes. In addition, it is not reasonably anticipated that the Site will be used for residential purposes.

A Record of Decision (ROD) addressing Operable Unit (OU) 14 was completed in May 2003.

OU 15:

Site 11, also known as Industrial Wastewater Disposal Area 100, comprises approximately 16 acres and reportedly included up to 14 leaching (or dry) wells. These wells were reportedly used to dispose of an estimated 20,000 gallons of liquid wastes generated by NSWC-White Oak laboratories between 1951 and 1976. The wastes of concern were reported to include acids, metals, photographic wastes, solvents [including trichloroethene (TCE)], and organic explosive compounds. The liquid wastes were conveyed from the laboratories to the wells by subsurface piping. Through their operation, subsurface soil and groundwater were potentially impacted and are the media of concern associated with Site 11. Surface soil would not have been impacted by the leaching well operation. Site 11 is located entirely within property currently owned by the GSA.

Site 11 was identified as a Navy IRP site in an IAS conducted by the Navy's Naval Energy and Environmental Support Activity (NEESA) in 1984. The purpose of the IAS was to identify sites at NSWC-White Oak that would undergo potential environmental investigation. The IAS included a records search, on-site survey, and site ranking and identified 14 sites as needing further investigation.

Investigation activities have been conducted at Site 11 since 1987 to meet the requirements of both a CERCLA RI and a RCRA RFI. The investigative activities focused on characterizing subsurface soil, groundwater, surface water, and sediment at or adjacent to Site 11.

In the RFA report, 40 SWMUs were recommended for an RFI to assess the presence and migration of potential contaminants of concern (PCOCs). SWMUs 10 through 19 were associated with Site 11.

The results of the RI confirmed the presence of contamination at Site 11. The analytical data were used in the calculation of potential risk, based on exposure to groundwater. The calculated risks were determined to be high enough to support the development of a Feasibility Study (FS) for the site. A draft FS was completed in March 1993 outlined the proposed remedial strategies for the site. The FS evaluated the previous site characterization data to determine the most effective means to reduce environmental hazards at NSWC-White Oak.

Source removal activities were completed at Sites 8, 9, and 11 during 1996 to address contaminant sources that may be impacting groundwater at NSWC-White Oak. The activities included the excavation and off-site disposal of waste and contaminated media from these sites in conjunction with the findings of the Design Verification Study. The activities included the removal of five leaching wells (LW-2, LW-4, LW-5, LW-12, and LW-13) and surrounding subsurface soil from Site 11. Subsurface soil sampling was performed following the completion of waste and soil removal activities to verify the removal of contamination.

The majority of the property occupied by Site 11 is open space with a few buildings and paved roads and parking areas. The GSA, which owns the property, has plans to use Site 11 for nonresidential purposes. The buildings constructed as part of this development will be leased to the FDA. Nonetheless, for the purposes of the site assessment, the site was evaluated assuming the possibility of future residential use.

Groundwater at Site 11 is not used as a potable water source at this time and there is no known plan to use the impacted groundwater. In addition, water for occupants of the former NSWC-White Oak is (and is expected to continue to be) supplied by a local municipal water authority.

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A Record of Decision (ROD) addressing operable unit (OU) 15 (Site 11) was completed in April 2004.

OU 16:

Groundwater at Site 49 and throughout the former NSWC White Oak is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells without a permit. Additionally, the rock aquifer matrix within the site is incapable of providing a supply in excess of 1 gallon per minute. Nonetheless, for the purposes of the site risk assessment, the groundwater was evaluated as a potential residential drinking water source.

Site 49 is located at the eastern edge of the 400 Area of the former NSWC White Oak in the north-central portion of the former navy facility. The topography in this portion of the former navy property contains considerable relief. The western portion of Site 49, including Building 427, is relatively flat. The central and eastern portions of Site 49 include a steep-sided ravine formed by Paint Branch. The total elevation drop from west to east across Site 49 is approximately 100 feet.

Contamination at Site 49 initially was identified during the Washington Suburban Sanitation Commission (WSSC) and White Oak sanitary sewer lines investigation. Trichloroethene (TCE) was detected in groundwater samples collected using direct-push technology on two occasions from one location (near WSSC Manhole 32142) along the bedding of WSSC sewer that runs along Paint Branch hydraulically downgradient of the Building 427 area. Groundwater samples collected from sewer bedding up- and further down-pipe of Building 427 did not contain TCE. A subsequent screening investigation indicated that TCE was present in groundwater near Building 427 at concentrations as great as approximately 4,000 micrograms per liter (?/l). Following a review of the screening investigation, this area was designated Site IR 49.

Building 427 is a nine-story hydrostatic testing facility that includes a 354 by 100-ft by 75-ft-deep interior water tank. This tank was fed by the exterior aboveground storage tank located immediately southeast of Building 427. Much of Building 427 (3 floors) is below ground. Building 427 was built in the mid 1960's and used by the Navy up until the mid 1990's. It has since been abandoned and is slated for demolition within the next few years. The Navy used the tank and building for hydrostatic testing of underwater weapons. Discussions with personnel who worked in, or had knowledge of the activities that took place in, Building 427 indicated that there was no known use of TCE in the building. A 2002 site inspection of the interior of the abandoned Building 427 found two empty five-gallon cans labeled "solvent, dry-cleaning type" in a storage room on the 100 level.

A "limestone pit" or leaching well was present on the west side of the building and, according to construction drawings, was to be used for disposing of acidic waste water from the water treatment system used to pre-treat water before filling the testing tank. Former building personnel stated that the leaching well was never used for its designed purpose and that the wastewater lines leading to the leaching well were reportedly connected to sinks in rooms that were initially designed to be laboratories but were in actuality used as offices. The leaching well was excavated in 2002 as part of the Site 49 remedial investigation.

It was noted by former building personnel that inert torpedoes used for testing in the tank were sometimes cleaned on the loading dock area on the north side of Building 427. It was also noted that a small area outside the back (east) gate along Perimeter Road was used for debris disposal and may conceivably been used for unauthorized dumping of wastes because it is relatively remote and hidden from view. Construction drawings also indicate that a subsurface foundation drain runs along the perimeter of the building about 17 to 27 feet below grade. The drain consists of 6-inch perforated clay pipe draining to two manholes, one at the northwest corner of the building and one near the southeast corner of the building. The northwest manhole is a sump that collects and pumps water to the southeast manhole. The southeast manhole also receives water from two interior basement sumps. Water was discharged from the southeast manhole to Paint Branch by a pipe and open channel.

While Building 427 is not in operation, the land and many of the buildings surrounding Building 427 are currently leased from GSA by the Air Force and are operated as the Arnold Engineering Development Center (AEDC). Access to the area leased by AEDC, which includes the land immediately surrounding and to the west of Building 427, is restricted.

On June 2, 1998, EPA issued an Administrative Order to the Navy, pursuant to Section 7003 of RCRA, 42 U.S.C. ? 6973, that required the Navy to:
(1) Undertake "'Interim Measures' at the facility to prevent or mitigate threats to human health and/or the environment;
(2) Perform a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) or Remedial Investigation (RI) to determine fully the nature and any release of hazardous wastes, solid wastes and/or hazardous constituents at and/or from the Facility; and
(3) Perform a RCRA Corrective Measures Study (CMS) or Feasibility Study (FS) to identify and evaluate alternatives for corrective action necessary to prevent or mitigate migration or releases of hazardous wastes, solid wastes and/or hazardous constituents at and/or from the Facility.

EPA's RCRA 7003 Order provides the framework for completing the investigation and remediation of the former NSWC-White Oak facility under RCRA. The Order also recognizes that "EPA and the Navy intend to integrate the Navy's CERCLA response obligations and RCRA corrective action obligations" at the facility.

A Record of Decision (ROD) addressing the TCE-contaminated groundwater in Operable Unit 16 was completed in November of 2004.

OU-17:

Site 47, formerly part of Site 11, Industrial Wastewater Disposal Area 100, is located along Bowdich Road in the central-eastern portion of the former NSWC-White Oak. Included in Site 47 is an unnamed tributary to Paint Branch, originating behind Building 90, traverses approximately 2,200 feet to the northeast, eventually joining with a stream from Site 2, Apple Orchard Landfill. Site

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47 is located entirely within property currently owned by the GSA.

The site was identified as an Installation Restoration (IR) site by the Navy. As mentioned above, Site 47 was initially part of Site 11. Previous sampling activities completed at Site 11 indicated that polychlorinated biphenyl (PCB) contamination along the stream behind Building 90 was of concern. Following the initial investigation, follow-up sampling in the spring of 2000 identified additional PCB contamination within the drainageway, extending downstream approximately 2,200 feet. The source of this contamination was associated with a transformer located in the southeastern corner of Building 90. A transformer fire resulted in the release of PCBs that migrated into the drainage channel east of Building 90.

Currently, Site 47 is a drainage channel. The GSA, which owns the property, has plans to use the property adjacent to Site 47 for nonresidential purposes. In addition, Site 47 is not reasonably anticipated to be used for residential purposes. Nonetheless, for the purposes of the site risk assessment, the site was evaluated assuming the possibility of future residential use.

A Record of Decision (ROD) addressing Operable Unit (OU) 17 was completed in May 2003.

OU 18:

Sites 5 and 13 are adjacent sites located in the northeast portion of NSWC-White Oak, along the northern property line. Site 5 consisted of three adjacent open burn areas that were surrounded by berms of compacted soil. The first bermed area or burn ring (BR)-1, was used from the late 1940s until 1970 as a burn site for paper, cardboard, wood, and other bulky ignitable materials, as well as small quantities of hazardous materials. In 1969-70, materials were ignited in BR-1 using pyrotechnic devices. It has also been reported that this site may have been used as a fire training area and that explosives may have been tested here. BR-2, located east of BR-1, was reportedly used for research operations. BR-3 is located north of the other two burn areas and was used to test pyrotechnic devices.

Site 13 is located adjacent to the north side of Site 5, between Dahlgren Road and the northern perimeter road. The site occupies approximately 0.7 acre. Anecdotal accounts suggest that between 1970 and 1978, approximately 6,000 to 10,000 gallons of oily sludge from storage tanks containing No. 6 fuel oil were spread over the surface of Site 13; however the location and history of Site 13 is not well documented. Because very little petroleum contamination has been found in the soil and groundwater in the area that is currently considered Site 13, it is now believed that most, if not all of the oil sludge disposal activities were actually conducted in the area defined as Site 4. Site 4 is being addressed under a separate remedial action. The past activities that resulted in the chlorinated volatile organic compound (VOC) contamination that is present in the groundwater at Site 13 are not documented.

On June 2, 1998, EPA issued an Administrative Order to the Navy, that required the Navy to (1) undertake Interim Measures (IM) at the facility to prevent or mitigate threats to human health and/or the environment; (2) perform a [Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) or RI] to determine fully the nature and any release of hazardous wastes, solid wastes and/or hazardous constituents at and/or from the Facility; and (3) perform a [RCRA Corrective Measures Study (CMS) or FS] to identify and evaluate alternatives for corrective action necessary to prevent or mitigate migration or releases of hazardous wastes, solid wastes and/or hazardous constituents at and/or from the Facility.

An RFI was conducted on the soil at Sites 5 and 13 in 2002, after the 2000 removal action for the Site 5 soil. The RFI included subsurface geophysics, test trenches, and soil sampling to characterize the soil at the two adjoining sites and to try to identify a source of the chlorinated VOCs found in the groundwater at Site l3. The RFI concluded that there were no risks presented by the Site 5 and 13 soil to either human or environmental receptors and that the soil did not represent a continuing source of contamination to the underlying groundwater.

The combined area of Sites 5 and 13 consists of open field and woodlands approximately 3.5 acres in size.

The GSA, which owns the property overlying the groundwater containing the highest concentrations of contaminants, has no immediate plans to use this area. The affected portion of the adjoining private property amounts to less than 1 acre and consists of an undeveloped and steeply sloped wooded hillside and floodplain of West Farm Branch.

There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of Sites 5 and 13, and throughout the former NSWC White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells without a permit.

A Record of Decision addressing OU 18 was completed in September 2004.

OU 19:

Solid Waste Management Unit (SWMU) 87 is located west and north of the former Building 611 in the south-central portion of the facility. The unit is located within 50 feet of Paint Branch and was reportedly used to store wood, metal waste, and other debris. SWMU 87 is located on a level area approximately 15 feet above and the east of the Paint Branch. The slop is steep, most likely due to erosion from the stream. To the northeast and southeast, moderately steep slopes rise above the site.

The area occupied by SWMU 87 is located entirely within property currently owned by the GSA.

A site screening was performed at SWMU 87 to determine if significant contamination was present in surface soil, subsurface soil, and groundwater as a result of solid waste storage. No significant contamination was detected in surface or subsurface soil near Building 611. However, groundwater contaminated with volatile organic compounds (VOC) was detected at monitoring locations near and upgradient of Building 611. Given the groundwater contamination identified onsite and the potential risks associated with direct exposure to groundwater, it was concluded that an RFI and a CMS would be conducted.

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The RFI for SWMU 87 characterizes the nature and extent of contamination and associated environmental conditions that may impact human health and the environment. As described earlier, SWMU 87 is located within 50 feet of Paint Branch. Area of Concern (AOC) M was a storm drain in front of Building 611 that discharged to Paint Branch through an outfall. Any potential impact to the surface water and sediment of Paint Branch was evaluated in the investigation for AOC M.

A CMS was conducted for SWMU 87 in 2005. The CMS included the evaluation of remedial alternatives for SWMU 87 groundwater.

The area of SWMU 87consists of open field adjacent to Paint Branch in south central portion of the property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of SWMU 87, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where (as here), a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

A Record of Decision addressing OU 19 was completed on October 2005.

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A CMS was conducted for SWMU 87 in 2005. The CMS included the evaluation of remedial alternatives for SWMU 87 groundwater.

The area of SWMU 87consists of open field adjacent to Paint Branch in south central portion of the property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of SWMU 87, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where (as here), a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

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A CMS was conducted for SWMU 87 in 2005. The CMS included the evaluation of remedial alternatives for SWMU 87 groundwater.

The area of SWMU 87consists of open field adjacent to Paint Branch in south central portion of the property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of SWMU 87, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where (as here), a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

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A CMS was conducted for SWMU 87 in 2005. The CMS included the evaluation of remedial alternatives for SWMU 87 groundwater.

The area of SWMU 87consists of open field adjacent to Paint Branch in south central portion of the property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of SWMU 87, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where (as here), a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

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A CMS was conducted for SWMU 87 in 2005. The CMS included the evaluation of remedial alternatives for SWMU 87 groundwater.

The area of SWMU 87consists of open field adjacent to Paint Branch in south central portion of the property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of SWMU 87, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where (as here), a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

A Record of Decision addressing OU 19 was completed on October 2005.

SITE NAME
STREET 1
STREET 2

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A CMS was conducted for SWMU 87 in 2005. The CMS included the evaluation of remedial alternatives for SWMU 87 groundwater.

The area of SWMU 87consists of open field adjacent to Paint Branch in south central portion of the property owned by the U.S. government. The GSA has no immediate plans to use this area. There are no water supply wells located on the property in the area within or downgradient of the plume. Groundwater at and downgradient of SWMU 87, and throughout the former NSWC-White Oak, is not used as a potable water source at this time and is unlikely to be used for such purposes in the future. Water for occupants of the former NSWC-White Oak and the surrounding properties is (and is expected to continue to be) supplied by a local municipal water authority. Local ordinances prevent the installation of new private potable supply wells where (as here), a public supply is readily available.

However, for the purposes of the site assessment, the site was evaluated assuming the possibility of residential use for the entire area including the use of the groundwater as a primary drinking water source.

A Record of Decision addressing OU 19 was completed on October 2005.

00	DS	DISCVRY	001		12/01/1979	EPA Fund
00	PA	PA	001		01/01/1982	Fed Fac
00	SI	SI	001	01/01/1983	08/01/1984	Fed Fac
00	SI	SI	002	05/24/1994	08/24/1995	EPA Fund
00	OO	SITE REASS	001	08/24/1995	06/02/1998	EPA In-House
00	CR	CI	001	03/10/1995		Fed Enforce
01	LV	FF RV	008	08/27/1999	10/30/2000	Fed Fac
01	LW	FF RI/FS	002	08/27/1999	09/28/2005	Fed Fac
02	LW	FF RI/FS	003	02/06/1998	07/18/2001	Fed Fac
02	RO	ROD	010		07/18/2001	Fed Fac
02	LX	FF RD	004	10/30/2000	08/04/2001	Fed Fac
02	LY	FF RA	004	06/05/2001	01/15/2002	Fed Fac
03	LW	FF RI/FS	004	02/06/1998	09/30/2004	Fed Fac
03	RO	ROD	003		09/30/2004	Fed Fac
04	LV	FF RV	006	05/24/2002	02/21/2003	Fed Fac

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MD0170023444	USN NAVAL SURFACE WARFARE CTR-WHITE OAK - CONTINUED					04	LW	FF RI/FS	005	02/06/1998	09/29/2004	Fed Fac
						04	RO	ROD	004		09/29/2004	Fed Fac
						04	LX	FF RD	006	10/20/2003	12/07/2004	Fed Fac
						04	LY	FF RA	006	02/23/2005		Fed Fac
						05	LV	FF RV	001	07/29/1996	10/15/2001	Fed Fac
						05	LW	FF RI/FS	006	02/06/1998	07/24/2002	Fed Fac
						05	RO	ROD	005		07/24/2002	Fed Fac
						06	LV	FF RV	002	07/29/1996	11/15/2004	Fed Fac
						06	LW	FF RI/FS	007	02/06/1998	09/30/2004	Fed Fac
						06	RO	ROD	006		09/30/2004	Fed Fac
						06	LX	FF RD	008	07/13/2004	12/07/2004	Fed Fac
						06	LY	FF RA	008	01/12/2005		Fed Fac
						07	LV	FF RV	003	07/29/1996	01/15/2002	Fed Fac
						07	LW	FF RI/FS	008	02/06/1998	07/24/2002	Fed Fac
						07	RO	ROD	011		07/24/2002	Fed Fac
						08	LW	FF RI/FS	001	05/30/1998	09/28/2005	Fed Fac
						09	LW	FF RI/FS	009	02/06/1998	09/28/2005	Fed Fac
						09	RO	ROD	001		09/28/2005	Fed Fac
						09	LX	FF RD	001	12/20/2003	10/03/2006	Fed Fac
						09	LY	FF RA	001	11/06/2006		Fed Fac
						13	LV	FF RV	005	02/07/2000	04/20/2001	Fed Fac
						13	LW	FF RI/FS	013	02/06/1998	03/07/2005	Fed Fac
						13	RO	ROD	012		03/07/2005	Fed Fac
						14	LV	FF RV	007	12/01/2001	05/30/2002	Fed Fac
						14	LW	FF RI/FS	014	06/15/2002	05/16/2003	Fed Fac
						14	RO	ROD	013		05/16/2003	Fed Fac
						15	LW	FF RI/FS	015	02/06/1998	04/08/2004	Fed Fac
						15	RO	ROD	014		04/08/2004	Fed Fac
						15	LX	FF RD	010	12/16/2003	12/07/2004	Fed Fac
						15	LY	FF RA	014	12/15/2004		Fed Fac
						16	LW	FF RI/FS	016	07/15/2002	11/16/2004	Fed Fac
						16	RO	ROD	015		11/16/2004	Fed Fac
						16	LX	FF RD	011	01/15/2005	07/20/2005	Fed Fac
						16	LY	FF RA	011	07/21/2006		Fed Fac
						17	LW	FF RI/FS	017	06/15/2002	05/16/2003	Fed Fac
						17	RO	ROD	016		05/16/2003	Fed Fac
						18	LW	FF RI/FS	018	05/30/1998	09/30/2004	Fed Fac
						18	RO	ROD	017		09/30/2004	Fed Fac
						18	LX	FF RD	012	12/30/2003	12/08/2004	Fed Fac
						18	LY	FF RA	015	01/04/2005		Fed Fac
						19	LW	FF RI/FS	019	06/15/2002	10/11/2005	Fed Fac
						19	RO	ROD	018		10/11/2005	Fed Fac

EPA ID / SITE ID	SITE NAME / STREET 1 / STREET 2 / CITY / COUNTY NAME	STATE / COUNTY (FIPS) CODE	ZIP CODE	LATITUDE / LONGITUDE / SOURCE	SMSA / HYDRO UNIT	OU	ACTION CODE, NAME	SEQ	ACTUAL START DATE	ACTUAL COMPLETE DATE	CURRENT ACTION LEAD
MD0170023444	USN NAVAL SURFACE WARFARE CTR-WHITE OAK - CONTINUED					19	LX FF RD	013	08/15/2005	03/01/2006	Fed Fac
0300417						19	LY FF RA	013	03/01/2007		Fed Fac

TOTAL NUMBER OF SITES IN REPORT: 1